

ARM Nauru Research Station
Site Visit 0608N

Visit Duration: 12 August to 20 August 2006

Nauru Island, Republic of Nauru

SV-0608N Final Report

Site: Nauru	Proposed Dates on Site: 12 - 20 August 2006
Team Members: Rex Pearson Kevin Widener Brad Booton of H/D (12 - 13Aug)	Ship or hand carry prior to SV: MMCR upgrade kit (ship from Manus)
	Safety: Major Hazards: Caustic chemicals (KOH), Explosive gas (H2), AC electricity Hazard Controls: BOM Electrolyser Handbook, BM Electrolyzer Operations/Maintenance Training, ASNZS 4836/2001-Safe Working on LV Electrical Installations, 2-man rule
	Reminder: When replacing items (e.g., desiccant, filters, etc.), record and report the quantity of spares left on site.

SITE TASKS

Task - for future SV

Task - completed

Priority	System	Date Completed (dd/Month)	Service Time (hours)	Tasks For each priority item insert new line(row) for each date/time entry
1	MMCR			Upgrade system
		12-Aug-06	8	Commenced upgrade work
		13-Aug-06	20	Continued upgrade, modifying pulse controller to standardise units between sites
		14-Aug-06	20	Continued upgrade. Commenced testing of mmcr to fault find.
		15-Aug-06	19	Continued fault finding MMCR.
		16-Aug-06	14	Calibration fault found, RX now calibrating. TWTA is faulty low power. Removed TWT chassis and checked and measured waveguide loss to confirm there were no problems there.
		17-Aug-06	11	MMCR running - not collecting spectra data. External disk will not be collecting data - therefore no requirement to changeout until TWT is replaced. Kevin is writing TWT replacement procedure and calibration document.
		18-Aug-06	11	Kevin is plotting/looking at data etc. Checked antenna cover and internals for damage etc.
2	MMCR			Change out antenna heater power supply
		18-Aug-06	0.5	N/A different unit in Nauru
3	MMCR			Change out electronics rack battery (UPS)
		17-Aug-06		Kevin widener suggests battery be replaced when TWT is replaced
4	MMCR			Train Observers on HD swap and shipping
		17-Aug-06	0.5	As the MMCR is not recording spectra data Kevin has decided not to do this. It should be done when the MMCR is reinstated to full service (TWT changeout) later this year.
5	COMM			Reprogram VSAT modem
		15-Aug-06	1	Sat modem reprogrammed, will test in the morning.

SITE TASKS

Task - for future SV

Task - completed

Priority	System	Date Completed (dd/Month)	Service Time (hours)	Tasks For each priority item insert new line(row) for each date/time entry
		16-Aug-06	1	Sat modem replaced and tested, spare returned to storage.
6	MWR			Prepare cable connectors for MWR change out
		17-Aug-06	1	Checked MWR shipment - no connectors. I thought there were new cables being sent from SGP for the changeout.
7	SMET			Connect Tipping Bucket Rain Gauge to SMET data logger
		17-Aug-06	0.5	Replacement microswitches for the TBRG not available
8	CIMEL			Check battery, connector
		17-Aug-06	0.5	Battery connections ok, but solar panels are pitted and will not be producing their correct power - they need to be replaced
9	Electrolyser			Check Teimitsi repair
		17-Aug-06	1	Basic electrolyser checks. All looks normal. Repair working correctly.
10	GENSET			Check diesel tank #1 fuel gauge
		17-Aug-06	0.5	Checked and shows level ok
11	GENSET			Oversee routine maintenance by Hastings Deering
		13-Aug-06	8	Maintenance completed
12	IRT (GND)			Check IRT/logger grounding
		18-Aug-06	1	Checked power and gnd connections, no fault found, all connections tight.
13	IRT (SKY)			Check connector, power supply
		18-Aug-06		Checked power and gnd connections, no fault found, all connections tight. IRT lens is pitted and needs to be replaced.
14	MWR			Change out instrument - Contact Maria Cadeddu prior to powering up
				Cables have not arrived from SGP
15	VCEIL			Install computer
		15-Aug-06	1.5	Vceil computer changed, Ron Reed setup up collections etc on the computer.
16	TSI			Clean and wax mirror
		18-Aug-06		Observers completed
17	TSI			Train Observers on cleaning and waxing, and ensure it is done as part of Monthly Rounds
		18-Aug-06		Observers trained
18	Sat Phone			Check satphone data connection to terminal server

SITE TASKS

Task - for future SV

Task - completed

Priority	System	Date Completed (dd/Month)	Service Time (hours)	Tasks
				For each priority item insert new line(row) for each date/time entry
		16-Aug-06	3	Checked operation of term server and can talk to it ok. Checked setup of sat modem and appeared ok, but unable to get it to respond to any AT commands. I suspect the data port may be faulty. A replacement satphone will be required.
19	SHIPPING			List items to be shipped following visit
				Ship MWR #15 to SGP for upgrade (if changed out)
20	FUTURE NEEDS			List items needed for future visits (spares, etc.)
				Satphone
				Replacement solar panels for the Cimel (2 off)
				Rust converter and killrust primer (or similar) and paint to repaint the satellite dish mounting. There is a lot of rust appearing on the steel work.
				Skyrad IRT lens